

WHAT IS CLAIMED IS:

- Sub 1
1. An image detector, comprising:
a conductive object detection pattern;
a light source for illuminating an object on the conductive object detection pattern;
a sensor for sensing an image of the object;
a power source selectively supplying power to the light source; and
a controller detecting a current flowing through the conductive object detection pattern, and in response thereto supplying a control signal to the power source to selectively supply power to the light source.
 2. The image detector of claim 1 wherein the conductive object detection pattern comprises spaced apart first and second electrodes.
 3. The image detector of claim 2 wherein the controller transmits a first electrical signal to the first electrode and receives a second electrical signal from the second electrode and detects a conductivity between the first and second electrodes.
 4. The image detector of claim 1 wherein the conductive object detection pattern is made of a material selected from a group consisting of indium tin oxide, tin oxide and TiOx.

1 5. The image detector of claim 1 wherein the conductive object detection pattern
2 comprises spaced apart first and second electrodes, each of the first and second electrodes
3 having a finger-shaped pattern, fingers of the first and second electrodes being alternately
4 disposed.

1 6. The image detector of claim 1 wherein the conductive object detection pattern
2 comprises spaced apart first and second electrodes, the first and second electrodes being in
3 parallel and having a P-shaped pattern.

1 7. The image detector of claim 1 wherein the conductive object detection pattern
2 comprises spaced apart first and second electrodes, the first electrode having a P-shaped
3 pattern and the second electrode being disposed adjacent the first electrode.

1 8. The image detector of claim 1 wherein the conductive object detection comprises a
2 triangle-shaped pattern, a part of said triangle-shaped pattern being cut so as to form first and
3 second electrodes.

1 9. The image detector of claim 1 wherein the conductive object detection pattern
2 comprises spaced apart first and second electrodes, the first and second electrodes being
3 disposed in parallel so as to form a rail-shaped pattern.

1 10. The image detector of claim 1 wherein the conductive object detection pattern
2 comprises spaced apart first and second electrodes, the first electrode having a U-shaped
3 pattern and the second electrode having an I-shaped pattern.

1 11. The image detector of claim 1 wherein the conductive object detection pattern
2 comprises spaced apart first and second electrodes, the first and second each having a coil-
3 shape pattern.

1 12. The image detector of claim 1 wherein the conductive object detection pattern
2 comprises spaced apart first and second electrodes, the first electrode having spiral-shaped
3 pattern and the second electrode being disposed adjacent to the first electrode.

1 13. The image detector of claim 1 wherein the controller supplies the control signal to the
2 power source to supply power to the light source in response to a living object residing on the
3 conductive object detection pattern.

1 14. The image detector of claim 1, wherein the controller receives an electrical signal
2 from the power source for providing the current flowing through the conductive object
3 detection pattern.

1 15. The image detector of claim 1, wherein the sensor is a thin film transistor optical
2 sensor.

1 16. The image detector of claim 15, wherein the conductive object detection pattern
2 comprises spaced apart first and second electrodes.

1 17. The image detector of claim 16, wherein the controller transmits a first electrical
2 signal to the first electrode and receives a second electrical signal from the second electrode
3 and detects a conductivity between the first and second electrodes.

1 18. A thin film transistor type optical sensor, comprising:
2 a light source for radiating light in accordance with a predetermined signal;
3 a window for transmitting the light radiated by the light source;
4 a thin film phototransistor for generating an optical current in accordance with an
5 intensity of received light;
6 a storage capacitor for storing charge information produced by the optical current
7 generated by the thin film phototransistor;
8 a switching thin film transistor for outputting the information stored in the storage
9 capacitor in accordance with an external control signal;
10 an insulating layer for covering the window, the thin film phototransistor, the storage
11 capacitor, and the switching thin film transistor;
12 a protecting layer formed on the insulating layer; and
13 a living object detection pattern formed on the protecting layer for supplying an
14 electrical power supply signal to the light source when a living object contacts the living
15 object detection pattern.

1 19. The thin film transistor type optical sensor of claim 18 wherein the conductive object
2 detection pattern is made of a material selected from the group consisting of indium tin oxide,
3 tin oxide and TiOx.

1 20. The thin film transistor type optical sensor of claim 18 wherein the conductive object
2 detection pattern comprises first and second electrodes spaced apart from each other at a
3 predetermined distance.

1. The first step is to identify the problem or question that needs to be addressed. This involves understanding the context and the specific requirements of the task.